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PTO/SB/21 (09-04)

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/692,075
	Filing Date	October 19, 2000
	First Named Inventor	Ken Harris
	Art Unit	1756
	Examiner Name	Angebrannt, Martin J.
Total Number of Pages in This Submission	Attorney Docket Number	22176.17

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks <div style="text-align: right;"> RECEIVED OIPE/IAP JUL 07 2005 </div>		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Houston Eliseeva LLP		
Signature	<i>Maria Eliseeva</i>		
Printed name	Maria M. Eliseeva		
Date	July 6, 2005	Reg. No.	43,328

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:			
Signature	<i>Maria Eliseeva</i>		
Typed or printed name	Maria M. Eliseeva	Date	July 6, 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/17 (12-04v2)

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).**FEE TRANSMITTAL**
For FY 2005☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 2,660

Complete if Known

Application Number	09/692,075
Filing Date	October 19, 2000
First Named Inventor	Ken Harris
Examiner Name	Angebrannt, Martin J.
Art Unit	1756
Attorney Docket No.	22176.17

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify):☒ Deposit Account Deposit Account Number: 502233 Deposit Account Name: Houston Eliseeva LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below☐ Charge fee(s) indicated below, except for the filing fee☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17☒ Credit any overpayments

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FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES**Fee Description**

	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims
- 20 or HP =	x	=		Fee (\$)
HP = highest number of total claims paid for, if greater than 20.				Fee Paid (\$)

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
- 3 or HP =	x	=	
HP = highest number of independent claims paid for, if greater than 3.			

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x	=	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Brief in support of appeal (\$500) + Ext. for reply fifth month (2,160)

Fees Paid (\$)

2,660

SUBMITTED BY

Signature	<i>Maria Eliseeva</i>	Registration No. (Attorney/Agent)	43,328	Telephone	781-863-9991
Name (Print/Type)	Maria M. Eliseeva	Date	July 6, 2005		

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Attorney Docket No: 22176.17 (ITW-13178)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re:	Ken Harris	Confirmation No:	6304
Serial No:	09/692,075	Group:	1756
Filed:	October 19, 2000	Examiner:	Angebrannndt, Martin J.
For:	Photo Definable Polyimide Film Used as an Embossing Surface	Customer No:	29127

APPELLANT'S BRIEF

Mail Stop Appeal Brief- Patents *fax 703-872-9306*
Commissioner for Patents
P.O. Box 1450,
Alexandria, Virginia 22313-1450

Sir:

This is the Applicant's appeal from the final Office Action, mailed June 3, 2004.

Real Party of Interest

Illinois Tool Works, Inc.

Related Appeals and Interferences

There are no related appeals or interferences.

Status of Claims

Claims 26, 28-29, 32-44 are pending in this application, which stand finally rejected pursuant to the outstanding Office Action, and are the claims being appealed. Applicant thanks the Examiner for allowing claims 29 and 37-42

Status of Amendments

The amendments to claims 26 and 43 have not yet been entered. Claims 28, 29, 32-44 were previously presented. Claim 26 is currently amended. Claim 43 is amended to fix a typographical error.

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Application No.:09/692,075
Brief dated: July 6, 2005
Reply to Office Action of June 3, 2004

Summary of Claimed Subject Matter

A method of transferring data from a holographic master to another surface via a seamless transfer medium comprising a polyimide material, the method comprising the steps of:

- (a) providing the seamless transfer medium by casting the polyimide material on the holographic master containing the data so that an impression of diffraction gratings of the holographic master is made on the cast polyimide material (Summary of the invention, pages 5-8);
- (b) removing the seamless transfer medium with the impression of the diffraction gratings from the holographic master ; and
- (c) heat curing the seamless transfer medium (pages 17-18); and
- (e) (d) using the seamless transfer medium to emboss the data to another surface (page 9).

A method of embossing data from a seamless embossing surface to another surfaces, said method comprising the steps of:

- (a) spin coating a photodefinable polyimide material on a roller and heat pre-curing a the polyimide material to form said seamless embossing surface of a target thickness (Fig 1(a)) (Summary of the invention, pages 5-8), (pages 12-13);
- (b) cooling said seamless embossing surface to ambient temperature(page 14);
- (c) profiling said seamless embossing surface by two interfering laser beams to form diffraction patterns to define said data on said seamless embossing surface;
- (d) wet developing said data on said seamless embossing surface by using a solution (pages 15-16);
- (e) heat curing of the seamless embossing surface (page 9 and 14); and
- (f) embossing said another surfaced with said data by said seamless embossing surface (page 9).

Application No.:09/692,075
Brief dated: July 6, 2005
Reply to Office Action of June 3, 2004

A method of transferring data from a first seamless surface to another surface, said method comprising the steps of:

- (a) spin coating a photodefinable polyimide material on a roller and heat pre-curing a the polyimide material to form said first seamless surface of polyimide(fig. 1(a));
- (b) cooling said seamless embossing surface to ambient temperature(page 14);
- (c) profiling said first surface by two interfering laser beams to define said data on said first seamless surface of polyimide (page15);
- (d) wet developing said data on said first seamless surface with a solution (pages15-16);
- (e) coating said first seamless surface of the polyimide material with a metal and applying ink to said first surface; and
- (f) contacting other surfaces by said first seamless surface to transfer ink corresponding to said data to said another surface.

A method of making a seamless profiled surface, the method comprising:

spin coating a roller with a photodefinable polyimide material and heat pre-curing the roller to form a seamless polyimide surface of a target thickness (Summary of the invention, pages 5-8), (pages 12-13);

cooling the roller to an ambient temperature (page 14);

interfering two laser beams on the seamless polyimide surface to profile the seamless polyimide surface with diffractions patterns in a pixel-by-pixel dot matrix manner (page 15);

wet developing the seamless polyimide surface on the roller with a solution (page 16); and

heating the seamless polyimide surface on the roller to harden the surface (page 16).

(Summary of the invention, pages 5-8)

Application No.: 09/692,075
Brief dated: July 6, 2005
Reply to Office Action of June 3, 2004

Grounds of Rejection to be Reviewed on Appeal

Claim 26 stands rejected under 35 U.S.C. 103(a) as being unpatentable over IBM Technical Disclosure Bulletin in view of Shvartsman and Kataoka.

Claims 28, 33, 35 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sassmannhausen et al. '768 in view of IBM technical disclosure Bulletin Vol. 30(3) PP.1392-1393 (08/1987) Shvartsman '689, Kataoka et al. JP 08-039572, Fan et al., EP 0777142 and McGrew '030.

Claims 28, 32, 33, 35 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sassmannhausen et al. '768 in view of IBM technical disclosure Bulletin Vol. 30(3) PP.1392-1393 (08/1987) Shvartsman '689, Kataoka et al. JP 08-039572, Fan et al., EP 0777142 and McGrew '030, and further in view of Abraham '282.

Claims 28, 33-36 and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sassmannhausen et al. '768 in view of IBM technical disclosure Bulletin Vol. 30(3) PP.1392-1393 (08/1987) Shvartsman '689, Kataoka et al. JP 08-039572, Fan et al., EP 0777142 and further in view of Hino et al. '469 and/or Hagan et al. '825.

Argument

Argument with respect to the 35 U.S.C. 103 rejections:

The Patent Office has rejected Claim 26 under 35 U.S.C. 103(a) over IBM Technical Disclosure Bulletin in view of Shvartsman and Kataoka. In particular, "the examiner notes that claim 26 does not even include a recitation of "spin coating", "wet development", or "heat curing" and therefore these argument [*sic*] are not commensurate with the scope of coverage sought."

Turning now to the merits with regard to amended Claim 26, a heat curing step was added to that Claim.

With respect to the rest of the claims, Applicant submits that the Patent Office has not met the burden of establishing a prima facie case of obviousness. Consider *In re Lee*: "Board of Patent Appeals and Interferences improperly relied upon 'common knowledge and common sense' of person of ordinary skill in the art to find invention of patent

Application No.:09/692,075
Brief dated: July 6, 2005
Reply to Office Action of June 3, 2004

application obvious over combination of two prior art references . . ." 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). The CAFC went on to say: "In its decision on Lee's patent application, the board rejected the need for 'any specific hint or suggestion in a particular reference' to support the combination of the Northrup and Thunderchopper references. Omission of a relevant factor required by precedent is both legal error and arbitrary agency action." Id. at 1434. Applicant respectfully invites the Patent Office to cite column and line number from within the cited references as to where a suggestion to combine may be found.

Applicant would also like to bring to the attention of the Patent Office to the following: "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching, suggestion or incentive supporting the combination." *Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 140, 231 USPQ 644, 647 (Fed. Cir. 1986) (citing *ACS Hosp. Syss., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed Cir. 1984).

Even if the Patent Office had created a *prima facie* case of obviousness, which applicant in no way concedes, Applicant rebuts. Applicant respectfully suggests that the Patent Office has used hindsight to attempt to combine 6 (and even more) references to find the present invention obvious. However, the references must be considered in their entirety. One reference that all of the rest of the Patent Office's arguments rely on is Fan, EP 0766142. Exposure and development is discussed on page 5, lines 33-59. Subsequent to development, Fan teaches that "[h]igh temperatures are not recommended because the support can shrink and distort, causing mounting and registration problems." Page 6, line 1. The temperature taught by Fan is 60 °C. One having ordinary skill in the art would not have been motivated to practice Fan with materials, like polyimides, that cure at hundreds of degrees Celsius.

Applicant acknowledges the Examiner's advisory action. However, the advisory action still does not teach or suggest, by line and column number, where the references suggest the combination.

Application No.: 09/692,075
Brief dated: July 6, 2005
Reply to Office Action of June 3, 2004

Applicant believes that any combination of the cited publications does not teach or suggest the invention as now claimed, for either the independent or respective dependent claims. A Notice of Allowance is respectfully solicited.

Respectfully submitted,

HOUSTON ELISEEVA LLP

By 
Maria M. Eliseeva

Registration No.: 43,328
4 Militia Drive, Ste. 4
Lexington, MA 02421
Tel.: 781 863 9991
Fax: 781 863 9931

Application No.: 09/692,075
Brief dated: July 6, 2005
Reply to Office Action of June 3, 2004

Claims Appendix

This listing of claims will replace all prior versions and listings of claims in this application:

a.) Listing of Claims

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Cancelled)
9. (Cancelled)
10. (Cancelled)
11. (Cancelled)
12. (Cancelled)
13. (Cancelled)
14. (Cancelled)
15. (Cancelled)
16. (Cancelled)
17. (Cancelled)
18. (Cancelled)
19. (Cancelled)
20. (Cancelled)
21. (Cancelled)
22. (Cancelled)

Application No.: 09/692,075
Brief dated: July 6, 2005
Reply to Office Action of June 3, 2004

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Currently amended) A method of transferring data from a holographic master to another surface via a seamless transfer medium comprising a polyimide material, the method comprising the steps of:

(a) providing the seamless transfer medium by casting the polyimide material on the holographic master containing the data so that an impression of diffraction gratings of the holographic master is made on the cast polyimide material;

(b) removing the seamless transfer medium with the impression of the diffraction gratings from the holographic master ; and

(c) heat curing the seamless transfer medium; and

(e) (d) using the seamless transfer medium to emboss the data to another surface.

27. (Cancelled)

28. (Previously Presented) A method of embossing data from a seamless embossing surface to another surfaces, said method comprising the steps of:

(g) spin coating a photodefinable polyimide material on a roller and heat pre-curing a the polyimide material to form said seamless embossing surface of a target thickness;

(h) cooling said seamless embossing surface to ambient temperature;

(i) profiling said seamless embossing surface by two interfering laser beams to form diffraction patterns to define said data on said seamless embossing surface;

(j) wet developing said data on said seamless embossing surface by using a solution;

(k) heat curing of the seamless embossing surface; and

(l) embossing said another surface~~d~~ with said data by said seamless embossing surface.

Application No.: 09/692,075
Brief dated: July 6, 2005
Reply to Office Action of June 3, 2004

29. (Previously Presented) A method of transferring data from a first seamless surface to another surface, said method comprising the steps of:

- (g) spin coating a photodefinable polyimide material on a roller and heat pre-curing a the polyimide material to form said first seamless surface of polyimide;
- (h) cooling said seamless embossing surface to ambient temperature;
- (i) profiling said first surface by two interfering laser beams to define said data on said first seamless surface of polyimide;
- (j) wet developing said data on said first seamless surface with a solution;
- (k) coating said first seamless surface of the polyimide material with a metal and applying ink to said first surface; and
- (l) contacting other surfaces by said first seamless surface to transfer ink corresponding to said data to said another surface.

30. (Cancelled)

31. (Cancelled)

32. (Previously Presented) The method of Claim 28, wherein profiling said seamless embossing surface is accomplished in a pixel-by-pixel dot matrix manner.

33. (Previously Presented) The method of Claim 28, wherein heat curing of the seamless embossing surface is done at a temperature selected from a range of about 280° C to about 400° C.

34. (Previously Presented) The method of Claim 28, wherein heat curing of the seamless embossing surface is done in a nitrogen atmosphere.

35. (Previously Presented) The method of Claim 28, wherein using a solution comprises using an aqueous solution.

Application No.: 09/692,075
Brief dated: July 6, 2005
Reply to Office Action of June 3, 2004

36. (Previously Presented) The method of Claim 28, wherein the photodefinable polyimide is a negative acting polyimide.
37. (Previously Presented) The method of Claim 29, wherein profiling said seamless embossing surface is accomplished in a pixel-by-pixel dot matrix manner.
38. (Previously Presented) The method of Claim 29, wherein heat curing of the seamless embossing surface is done at a temperature selected from a range of about 280° C to about 400° C.
39. (Previously Presented) The method of Claim 29, wherein heat curing of the seamless embossing surface is done in a nitrogen atmosphere.
40. (Previously presented) The method of Claim 29, wherein using a solution comprises using an aqueous solution.
41. (Previously Presented) The method of Claim 29, wherein the metal comprises Ni or Cr.
42. (Previously Presented) The method of Claim 29, wherein the photodefinable polyimide is a negative acting polyimide.
43. (Currently Amended) A method of making a seamless profiled surface, the method comprising:
- spin coating a roller with a photodefinable polyimide material and heat pre-curing the roller to form a seamless polyimide surface of a target thickness;
 - cooling the roller to an ambient temperature;
 - interfering two laser beams on the seamless polyimide surface to profile the seamless polyimide surface with diffractions patterns in a pixel-by-pixel dot matrix manner;
 - wet developing the seamless polyimide surface on the roller with a solution; and

Application No.:09/692,075
Brief dated: July 6, 2005
Reply to Office Action of June 3, 2004

heating the seamless polyimide surface on the roller to harden the surface.

44. (Previously Presented) The method of Claim 43, wherein the photodefinable polyimide material is negative acting.

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Application No.:09/692,075
Brief dated: July 6, 2005
Reply to Office Action of June 3, 2004

Evidence Appendix

None

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Application No.:09/692,075
Brief dated: July 6, 2005
Reply to Office Action of June 3, 2004

Related proceedings appendix

None